



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,983	01/28/2002	Chung-Chih Chang	MR1035-990	6725
4586	7590	02/23/2006	EXAMINER	
ROSENBERG, KLEIN & LEE 3458 ELLICOTT CENTER DRIVE-SUITE 101 ELLICOTT CITY, MD 21043			WORKU, NEGUSSIE	
			ART UNIT	PAPER NUMBER
			2626	

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/055,983	Applicant(s) CHANG, CHUNG-CHIH	
	Examiner Negussie Worku	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,7,9,12-14 and 16-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3,7,9 and 16-18 is/are allowed.
- 6) ☒ Claim(s) 12-14 and 19 is/are rejected.
- 7) ☒ Claim(s) 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

[Signature]

DOUGLAS Q. TRAN
PRIMARY EXAMINER

[Signature]

Office Action Summary	Application No.	Applicant(s)	
	10/055,983	CHANG, CHUNG-CHIH	
	Examiner	Art Unit	
	Negussie Worku	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,7,9,12-14 and 16-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3,7,9 and 16-18 is/are allowed.
- 6) ☒ Claim(s) 12-14 and 19 is/are rejected.
- 7) ☒ Claim(s) 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Negussie Worku
2/18/06

DETAILED ACTION

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. The currently amended claims 12-14, and the newly submitted claims 16-19 are rejected for failing to meet 35 U.S.C. 112, second paragraph as indicated below. This Office action is non-final.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1, failed to point out the function of the interconnected elements as being indefinite. Furthermore, the claimed limitation does not further limit the function of the claimed elements; it shows only the interconnection to each other. Claims 13, 14 and 19 are also rejected as being dependent on claim 12.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2626

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 12-14 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Sakaguchi (USP 6,490,057).

With respect to claim 12, Sakaguchi discloses a device applied to scaling factor of horizontal scan of a scanner, (fig 4, see abstract) comprising mainly: an input conducting wire (A/D converter 28 of fig 4, input and positioned at the foremost end of the scanner 1 of fig 3) situated at the foremost end of a scanner (1 of fig 3) and used as an input end of signal, see (col.8, lines 45-65); at least an adder device (clock changeover 33 of fig 4) connected to said input conducting wire 28 of fig 4); a shifting device (30 of fig 4) with one end thereof connected to said input conducting wire (28 of fig 4) and the other end thereof connected to said addition device (33 of fig 4); and a shifter with one end thereof connected to said addition device and the other end thereof connected to an output conducting wire (output transfer clock 24 of fig 4, col.8, lines 45-65).

With respect to claim 13, Sakaguchi discloses the device wherein said shifter (30 of fig 4) is formed by routing wires (25 of fig 4).

With respect to claim 14, Sakaguchi discloses the device (fig 4), wherein said shifter (30 of fig 4) is a bus shifting circuit formed of logical gates (22 of fig 4).

With respect to claim 19, Sakaguchi discloses the device (wherein said at least an adder (clock change over 33 of fig 4) Includes a plurality of series-connected adders (a, A b, B of fig 4) and said at least a shifter includes a plurality of shifters, (pulse out put generator 30 of fig 4) each of said series-connected adders coupled at a first input thereof to an output of an adjacent one of said plurality of adders (33 of fig 2) and coupled at a second input thereof to an output of a corresponding one of said plurality of shifters, (30 of fig 4) said corresponding shifter being coupled at an input thereof to said output of said adjacent adder, said end shifter being coupled at an input thereof to an output of a last one of said plurality of adders (output transfer clock 24 of fig 4, col.8, lines 45-65).

Allowable Subject Matter

6. Claims 1-3, 7,9,16-18, are allowed. The following is a statement of reasons for the indication of allowable subject matter: With respect to independent claims 1, 7 and 12 applicant's response has been carefully reviewed and analyzed in view of the Office action dated 24 August 2005.

As indicated in the applicant's remarks claims 4-6, 8, 10, 11 and 15 have been cancelled. Claims 1-3, 7, 9, 12-4 and 16-20 are currently pending. All pending claims have been closely reviewed in light of the amended subject matter as filed by applicant on December 23, 2005. According to an amendment made to claims 1 and 7, claims (1 and 7) are in condition for Allowance for the reason the prior art used against the claimed limitation has been no longer relevant or does not read on the claimed limitation.

Art Unit: 2626

Therefore, claims 1-3, 7,9, 16-18 are allowed for the reason the prior art searched and of the record does not teach or disclose the claimed invention as amended.

However, claims 12-14 and 19 have been rejected as submitted in the office action indicated above.

Claims Objected to having allowable subject matter

7. Claim 20 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

With respect to claim 20, the prior art does not teach or disclose the device, where said plurality of adders and said corresponding plurality of shifters are equal in number to at least predetermined number of bits of said $(\log n - 1)$, where n is at least 2 more than a p input signal representing a pixel, i being an integer.

Response to the applicant's remarks/arguments

8. With respect to claims 1-3, 7,9,12-14 and 16 and 20, applicant's response has been carefully reviewed and analyzed in view of the Office action dated 24 August 2005. All pending claims have been closely reviewed in light of the amended subject matter as filed by applicant on December 23, 2005. According to an amendment made to claims 1 and 7, claims are in condition for Allowance for the reason the prior art used against the claimed limitation has been no longer relevant or does not read on the claimed limitation.

Art Unit: 2626

Therefore, claims 1-3, 7,9, 16-18 are allowed for the reason the prior art searched and of the record does not teach or disclose the claimed invention as amended.

However, claims 12-14 and 19 have been rejected as submitted in the office action indicated above.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Negussie Worku whose telephone number is 571-272-7472. The examiner can normally be reached on 9am-6pm.

Art Unit: 2626

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Negussie Worku
02/18/06

DOUGLAS Q. TRAN
PRIMARY EXAMINER

